

21128

S/189/60/000/005/006/006  
B110/B207

Disalicylal ethylene ...

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova  
Kafedra radiokhimii (Moscow State University imeni M. V. Lomonosov Department of Radiochemistry)

SUBMITTED: April 16, 1960

Legend to Table 1: 1) Compound; 2) DSED; 3) g/l; 4) M/l.

TABLE 1

Таблица 1

1 Соединение	0°		20°		45°	
	3) г/л	4) м/л	3) г/л	4) м/л	3) г/л	4) м/л
2 ДСЭД-Тi	—	—	$4,0 \cdot 10^{-4}$	$1,0 \cdot 10^{-6}$	—	—
2 ДСЭД-Nb	$1,2 \cdot 10^{-4}$	$2,6 \cdot 10^{-7}$	$3,0 \cdot 10^{-4}$	$6,5 \cdot 10^{-7}$	$1,1 \cdot 10^{-3}$	$2,4 \cdot 10^{-6}$
2 ДСЭД-Ta	$1,3 \cdot 10^{-4}$	$2,5 \cdot 10^{-7}$	$2,3 \cdot 10^{-4}$	$4,2 \cdot 10^{-7}$	$7,6 \cdot 10^{-4}$	$1,4 \cdot 10^{-6}$

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Disalicylal ethylene ...

Legend to Table 2: 1) Microcomponent; 2) time of equilibrium adjustment in days; 3) Nb-DSED; 4) TA-DSED.

TABLE 2.

Таблица 2

1 Микрокомпонент	D	$\lambda$	2 Время установления равновесия (сутки)
3 Дисалицилалэтилендинимнат ниобия	1,2	1,0	27
4 Дисалицилалэтилендинимнат тантала	1,5	1,2	10

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85357

S/120/60/000/005/050/051  
E032/E314

21.5200  
AUTHORS:

Vovenko, A.S., Lyubimov, A.L., Savin, I.A.,  
Stabinskiy, V.S. and Stoychev, T.T.

TITLE: A Cherenkov Counter Using Total Internal Reflection  
PERIODICAL: Pribory i tekhnika eksperimenta, 1960, No. 5,  
pp. 119 - 121

TEXT: The counter is shown schematically in Fig. 1. The Cherenkov radiation produced by a charged particle passing through the radiator strikes the front end at various angles, depending on the velocity of the particle. For particles with a velocity  $\beta_0 = (n_1^2 - n_2^2)^{-1/2}$  the angle of incidence is equal to the angle of total internal reflection. The Cherenkov radiation due to particles with velocities greater than  $\beta_0$  experiences total internal reflection and is absorbed by the rear wall of the container which is covered by black velvet. In the case of particles having a velocity smaller than  $\beta_0$ , the radiation leaves the radiator and strikes two photomultipliers placed below the particle beam.

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85357

S/120/60/000/005/030/051  
E032/E314

A Cherenkov Counter Using Total Internal Reflection

Each photomultiplier has a separate output and a special mirror is used to improve the light collection. The characteristics of the counter were investigated in the  $\pi^+$  beam of the synchrocyclotron of the Laboratoriya yadernykh problem OIYaI (Laboratory for Nuclear Problems of the Joint Institute for Nuclear Studies). In the case of 2.8 GeV/C

UX

$\pi^+$  mesons the efficiency of the counter was found to be between 0.01 and 0.03, depending on the type of photomultiplier employed. A similar device has been described by Agnew et al in Ref. 2. However, the efficiency in the latter work was 0.1. Acknowledgments are expressed to V.I. Veksler for valuable advice. There are 2 figures and 3 references: 1 Soviet and 2 English.

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy (Joint Institute for Nuclear Studies)

SUBMITTED: September 2, 1959

Card 2/2

SAVICH, I.A., dotsent

Honored Academician. Izv. TSKhA no.6:164-166 '60. (MIRA 13:12)  
(Red'kin, Andrei Petrovich, 1875-)

LAPITSKIY, A. V.; CHZHUAN YA-UY; SAVICH, I. A.

Titanium, niobium, tantalum, and protactinium disalicylate ethylene-  
diiminates. Vest. Mosk. un. Ser. 2: Khim. 15 no.5:78-79 S-O '60.  
(MIRA 13:11)

1. Moskovskiy gosudarstvennyy universitet, kafedra radiokhimii. . .  
(Titanium compounds) (Niobium compounds)  
(Tantalum compounds) (Protactinium compounds)

67913

S/O20/60/130/03/018/065  
B011/B016

5.2200(A)  
~~5(2), 5(3)~~

AUTHORS:

Zelentsov, V. V., Savich, I. A., Spitsyn, Vikt. I.,  
Academician

TITLE:

Inner Complex Compounds of Hexavalent Uranium With Azomethine  
Derivatives

PERIODICAL:

Doklady Akademii nauk SSSR, 1960, Vol 130, Nr 3, pp 549-551  
(USSR)

ABSTRACT:

The present report deals with the stereochemistry of uranyl compounds with Schiff's bases. The compounds mentioned in this paper may be divided into three groups according to the type of the ligand. The authors used three types of Schiff's bases which had been obtained from ethylene diamine (A), aromatic amine (B) as well as from 2-amino-pyridine (V) (see scheme). The analysis revealed that the uranyls of type 1 never contain more than 1 molecule of the solvent (Table 1). The molecule can be removed only by prolonged heating at 160-180°. The nature of the complex and the difficult elimination of the solvent molecule suggest that a donor-acceptor-bond may be formed. Accordingly, the coordination number of uranium in such compounds

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Inner Complex Compounds of Hexavalent Uranium With  
Azomethine Derivatives

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is 7 and will be 6 after elimination of the solvent-molecule. In the second type of the uranyl complexes, the case is quite a different one: they contain 2 pyridine molecules which cannot be removed even by prolonged heating at 160-180°. At 200-220° the complexes are destroyed. Also in this case a donor-acceptor-bond is probably formed. The coordination number of the hexavalent uranium in such complexes apparently equals 8. 2-Salicylal-aminopyridine (contrary to salicylal-aniline) readily forms a complex with uranyl even in a neutral medium. As the former differs from the latter only by the occurrence of heterocyclic nitrogen, such a considerable increase in the capability of complex formation may be attributed to heterocyclic nitrogen. It was, however, not possible to produce a complex of uranium with 3-salicylal-aminopyridine. Accordingly, the stability of the complex depends mainly on the position of the heterocyclic nitrogen with respect to the azomethine-group. It was confirmed by analysis that complexes of this type contain no molecules of the solvent. Herefrom the authors conclude that in the complex compounds of uranyl with azomethine-derivatives of the 2-aminopyridine series, a coordination-saturation of

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Inner Complex Compounds of Hexavalent Uranium With  
Azomethine Derivatives

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hexavalent uranium takes place. This is possible only if the heterocyclic nitrogen is coordinated with the central atom. The coordination number of uranium in these compounds is, most likely, equal to 8. Thus, uranium, according to the properties of the Schiff's base, shows a variable coordination number. Taking into account that the uranyl ion has a linear structure, it follows that, from among all possible structural models of the hexavalent uranium complexes with the coordination numbers 6, 7 and 8, such would have to be given preference, in which the ligand atoms combined with uranium are placed in a plane vertical to the direction O - U - O. Since the high stability of  $UO_2^{2+}$  is due to the participation of the 5 f-orbits of uranium in the bindings with oxygen (Ref 8), the structure of the complexes for the coordination numbers 5, 7 and 8 will correspond to a tetragonal bi-pyramid ( $5f^3 6d^2 7s$ ) I, a pentagonal bi-pyramid ( $5f^3 6d^3 7s$ ) II and a hexagonal bi-pyramid ( $5f^3 6d^3 7s 7p$ ) III (a,b) (Scheme). There are 1 table and 8 ref-

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Inner Complex Compounds of Hexavalent Uranium With  
Azomethine Derivatives

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B011/B016

erences, 2 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova  
(Moscow State University imeni M. V. Lomonosov) ✓

SUBMITTED: October 8, 1959

Card 4/4

TRAILINA, Ye.P.; SAVICH, I.A.; ZELENTOV, V.V.

Synthesis of inner-complex compounds of some cations with Mannich  
bases. Zhur. neorg. khim. 5 no.8:1902-1904 Ag '60. (MIRA 13:9)  
(Mannich bases) (Complex compounds)

CHZHUAN YA-UY; SAVICH, I.A.; LAPITSKIY, A.V.; SAMORUKOV, Y.R.; TITOV, L.G.

Inner-complexes compounds of titanium, zirconium, niobium, and tantalum with some Schiff bases. Vest.Mosk.un.Ser. 2: Khim. 15 no.3:40-45 My-Je '60. (MIRA 13:8)

1. Kafedra radiokhimii Moskovskogo universiteta.
  - (Titanium compounds)
  - (Zirconium compounds)
  - (Niobium compounds)
  - (Tantalum compounds)

CHZHUAN YA-UY [Chuang Ya-wui]; LAPITSKIY, A.V.; SAVICH, I.A.

Some properties of solutions of complex compounds formed by titanium with Schiff bases. Vest. Mosk un Ser. 2: Khim. 15 no.4:43-45 J1-Ag '60. (MIRA 13:9)

1. Kafedra radiokhimii Moskovskogo universiteta.  
(Titanium compounds) (Schiff bases)

TRAILINA, Ye.P.; ZELENTSOV, V.V.; SAVICH, I.A.; SPITSYN, Vikt.I., akademik

Spectrophotometric determination of the molecular weights of some  
inner-complex compounds. Dokl.AN SSSR 134 no.4:848-849 0  
'60. (MIRA 13:9)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.  
(Molecular weights) (Complex compounds)

22483

S/186/61/003/003/001/018  
E071/E435

213100

AUTHORS: Lapitskiy, A.V., Chuang Ya-Wuy and Savich, I.A.

TITLE: A Study of the Process of Cocrystallization of Protactinium With Complex Compounds of Titanium, Niobium and Tantalum

PERIODICAL: Radiokhimiya, 1961, Vol.3, No.3, pp.241-245

TEXT: The authors studied coprecipitation of protactinium with complex compounds of titanium, zirconium, niobium and tantalum in order to determine if there were any chemical analogues. They were unsuccessful in synthesizing complex compounds of zirconium and titanium with Schiff's bases of the same composition. (The methods of producing such compounds are the subject of a separate paper.) Therefore, the study was limited to salicylaetylenediiminates of niobium, tantalum and titanium which were similar to each other in respect of their stability and solubility. The method of synthesis of the above compounds was the same as described in a previous paper (Ref.4: Chuang Ya-Wuy, I.A.Savich, A.V.Lapitskiy, V.R.Samorukov, L.G.Titov, Vestn.MGU, seriya II, 4, 40 (1960). The compounds were marked with radioactive niobium -95, Card 1/4

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S/186/61/003/003/001/018

E071/E435

A Study of the Process of ...

tantalum - 182 and protactinium - 233, the purity of which was confirmed by the half-life period and energy of  $\beta$ -radiation. The solubilities of the above complexes in carbon tetrachloride (which was used as a solvent in all experiments) were determined at 0, 20 and 45°C (titanium complex only at 20°C) and are given in the paper. Assuming that the solutions are ideal, the heats of solution of niobium and tantalum complexes were calculated as 8.3 and 6.9 k/cal/mole respectively. The distribution of protactinium between precipitates and saturated solutions of niobium, tantalum and titanium complexes was studied using the attainment of the equilibrium "from above". The authors possessed indicator quantities of protactinium - 233 which permitted varying the quantities of the microcomponent only by two orders. The total activity of the microcomponent in the solid phase was  $10^6$  to  $10^7$  impulses/min. Weighed samples of salts containing protactinium - 233 as a microcomponent were placed in glass ampules to which saturated solutions of the same (but not radioactive) salts in carbon tetrachloride were added. The ampules were then sealed and shaken for long periods in a thermostat. After a given period of recrystallization, the ampules

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S/186/61/003/003/001/018  
E071/E435

A Study of the Process of ...

were centrifuged at 6000 r.p.m. for 1 hour, opened and the radioactivity of samples of the liquid phase determined ( $\beta$  radiation). The experimental results are tabulated. It was found that in the system niobium disalicylalethylenediiminate - protactinium, the recrystallization takes place slowly and in the system tantalum complex - protactinium the equilibrium is established much faster. It appears from the constancy of the observed values of  $D$  and  $\lambda$  that in the above two systems an isomorphic coprecipitation takes place, while in the system titanium complex - protactinium this phenomenon was not observed. As the tendency of protactinium to the formation of complexes is similar to that of niobium and tantalum, it is assumed that protactinium forms with Schiff's bases, intercomplex compounds of a composition  $PaR_2Cl_3$ , i.e. similar to niobium and tantalum disalicylalethylenediiminate. The solubility of this compound in carbon tetrachloride at 20°C should be about  $10^{-7}$  mole/l and the heat of solution about 6 kcal/mole. Acknowledgments are expressed to M.S.Merkulova for her advice. There are 5 tables and 12 references: 7 Soviet-bloc and 5 non-Soviet-bloc. The 3 references to English language publications read as follows:  
Card 3/4

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S/186/61/003/003/001/018

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A Study of the Process of ...

M.Bachelet, J.Chem.Phys., 43, 106 (1946; A.G.Maddock, G.Miles,  
J.Chem. Soc., 253 (1949); G.Boissieres, M.Haissinsky, J.Chem. Soc.,  
256 (1949).

SUBMITTED: May 26, 1960

Card 4/4

ZELENTSOV, V.V.; BAY VEN'-MIN [Pai Wên-ming]; SAVICH, I.A.; SPITSYN, V.I.

Chelate polymers of uranyl. Vysokom.soed. 3 no.10:1535-1543  
0 '61. (MIRA 14:9)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.  
(Uranyl compounds) (Chelates)

89903

5.3700

2209

S/078/61/006/003/015/022  
B121/B208

AUTHORS: Lapitskiy, A. V., Chu Ang Ya-ui, Savich, I. A.

TITLE: Studies of some physico-chemical properties of disalicylal-ethylene diiminates of titanium, niobium, and tantalum

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 3, 1961, 653-658

TEXT: Apparent molecular weight, electrical conductivity, absorption spectra, refractive indices and other properties of the disalicylal-ethylene diiminates of titanium, niobium, and tantalum both in solid state and in solutions were studied by several physico-chemical methods. These compounds are sparingly soluble, fine-crystalline complexes. The apparent molecular weights were determined by dissolving them in acetanilide, and the following values were found:  $N_p = 1.726 \pm 0.002$ , for the titanium compound,  $N_p = 1.762 \pm 0.002$  for the niobium compound, and  $N_p = 1.746 \pm 0.002$  for the tantalum compound. The refractive indices were: 125 for the titanium compound; 90 for the niobium compound; and 106 for the tantalum

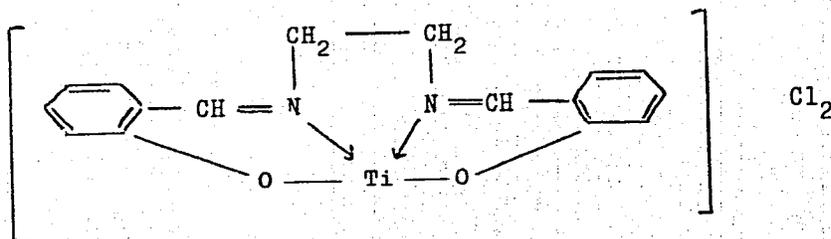
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89903

S/078/61/006/003/015/022  
B121/B208

Studies of some physico-chemical...

compound. Determination of molecular electrical conductivities disclosed that these complexes dissociate into three ions when dissolved in methyl alcohol. The following structural formulas were obtained on the basis of molecular weights and electrical conductivities:

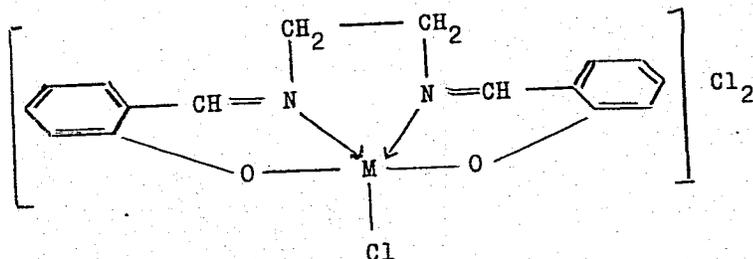


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89903

S/078/61/006/003/015/022  
B121/B208

Studies of some physico-chemical...



M = Nb, Ta

Spectrophotometric determinations in a wavelength range of 250-600 mμ indicated that the resultant chelates are of low stability. There is no dependence of the absorption spectra on the radius of the central ion. The titanium chelate is more stable than the corresponding niobium and tantalum compounds. There are 2 figures, 4 tables and 10 references: 4 Soviet-bloc and 6 non-Soviet-bloc.

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89903

S/078/61/006/003/015/022  
B121/B208

Studies of some physico-chemical...

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova  
Laboratoriya radiokhimii (Moscow State University imeni  
M. V. Lomonosov, Radiochemical Laboratory)

SUBMITTED: December 14, 1959

Card 4/4

ZELENTSOV, V.V.; TRAILINA, Ye.P.; GLUSHKO, Yu.V.; SAVICH, I.A.; SPITSYN,  
VIKT.I.

Inner-complex uranyl compounds with derivatives of 8-hydroxyquino-  
line of the type of Mannich bases. Zhur.neorg.khim. 6 no.5:1063-  
1065 My '61. (MIRA 14:4)

(Uranyl compounds)

TRAILINA, Ye.P.; ZELENTSOV, V.V.; SAVICH, I.A.; SPITSYN, Vikt.I.

Solubility products of inner-complex compounds of copper, nickel,  
and uranium with 8-hydroxyquinoline. Zhur.neorg.khim. 6 no.9:  
2048-2051 S '61. (MIRA 14:9)

(Organometallic compounds)

TRAILINA, Ye.P.; ZELENTSOV, V.V; SAVICH, I.A.; BYLYNA, E.A.;  
YEVDOKIMOV, V.B.

Magnetic susceptibility of the chelate compounds of divalent copper,  
nickel, and cobalt with Mannich bases. Zhur. fiz. khim. 35  
no. 4:960-962 Ap '61. (MIRA 14:5)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.  
(Chelates—Magnetic properties)

SAVICH, Igor' Aleksandrovich; FAYNBOYM, I.G., red.; NAZAROVA, A.S.,  
tekh. red.

[V.G.Khlopin, an outstanding Soviet radiochemist] V.G.Khlopin -  
vydaiushchiisia sovetskii radiokhimik. Moskva, Izd-vo "Znanie,"  
1962. 81 p. (Novoe v zhizni, nauke, tekhnike. IX Series:  
Fizika i khimiia, no.2) (MIRA 15:4)  
(Khlopin, Vitalii Grigor'evich, 1890-1950)  
(Radiochemistry)

TRAILINA, Ye.P.; SAVICH, I.A.; SPITSYN, V.I.

Investigating inner-complex compounds of a number of cations  
formed by Mannich bases. Trudy LVMI 1:138-142 '62  
(MIRA 17:7)

SAVICH, I.A.; PIKAYEV, A.K.; LEBEDEV, B.G.; KUZ'MICHEVA, Ye.U.;  
SPITSYN, Vikt.I.

Certain properties of chelate-type salts of uranyl with Schiff bases.  
Zhur.neorg.khim. 7 no.3:498-509 Mr '62. (MIRA 15:3)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova,  
kafedra neorganicheskoy khimii i Institut fizicheskoy khimii  
AN SSSR.

(Uranyl salts)

(Schiff bases)

KUDRYAVTSEV, A. S.; SAVICH, I. A.

Inner-complex compounds of the elements of the titanium subgroup  
with salicylal-o-aminophenol. Zhur. VKHO 7 no.5:591-593 '62.  
(MIRA 15:10)

1. Moskovskiy gosudarstvennyy universitet imeni M. V. Lomonosova.

(Organometallic compounds)

KUDRYAVTSEV, A.S.; SAVICH, I.A.

Study of some physicochemical properties of synthesized new inner complex compounds of the divalent cation series as related to the nature of the central atom and the structure of additives. Part 1: Synthesis of Schiff bases formed by acetylacetone, o-aminobenzaldehyde, 2-hydroxy-1-naphthaldehyde, and dibenzoylmethane with some amines. Vest.Mosk.un.Ser.2: Khim. 17 no.2: 57-60 Mr-Ap '62. (MIRA 15:4)

1. Kafedra neorganicheskoy khimii Moskovskogo universiteta.  
(Schiff bases)

KUDRYAVTSEV, A.S.; SAVICH, I.A.; NIKOLAYEV, L.A.

Catalytic activity of complex compounds with Schiff's bases.  
Zhur.fiz.khim. 36 no.8:1832-1834 Ag '62. (MIRA 15:8)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova, khimi-  
cheskiy fakul'tet i Moskovskiy institut inzhenerov transporta.  
(Complex compounds) (Schiff bases) (Catalysis)

S/186/63/005/001/010/013  
E075/E436AUTHORS: Pankratova, L.N., Savich, I.A., Lapitskiy, A.V.

TITLE: Complexing of uranyl-ion with some Schiff bases

PERIODICAL: Radiokhimiya, v.5, no.1, 1963, 114-118

TEXT: The authors determined the dissociation constants of internal complex compounds formed from salicylal-aminopyridine or its halogeno-derivatives and  $UO_2^{2+}$ . The bases used were: 2-salicylal-aminopyridine, 5-chloro-, 5-bromo- and 5-iodo-2-salicylaminopyridine. The dissociation constants of the complexes were determined by potentiometric titration with an alkali at pH values ranging from 3 to 6. The constants were calculated using Bochkova's equation

$$pK = pH + \lg \left( \frac{V_0 M_0}{V_1 M_1} - 1 \right)$$

where  $V_0$  - volume of dioxane solution of a Schiff base,  $M_0$  - its molarity,  $V_1$  - volume of added alkali and  $M_1$  - normality of the alkaline solution. The constants increased from  $2.3 \times 10^{-10}$  to  $3.1 \times 10^{-6}$  for the bases in the order H-, Cl-, Br-

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E075/E436

Complexing of uranyl-ion ...

and I-derivatives. The stability constants for the complexes were determined using Bjerrum's graphical method. The constants decreased from  $2.0 \times 10^{11}$  to  $1.0 \times 10^6$  for the H-, Cl-, Br- and I-derivatives in this order. There are 1 figure and 3 tables.

SUBMITTED: December 18, 1961

Card 2/2

KUDRYAVTSEV, A.S.; SAVICH, I.A.

Newly synthesized inner-complex compounds of bi- and quadrivalent cations and their physicochemical properties in relation to the character of the central atom and to the structure of addends.  
Part 3: Synthesis of inner-complex compounds of bi- and quadrivalent cations with some Schiff bases. Vest.Mosk.un. Ser.2:Khim. 18  
no.1:32-34 Ja-F '63. (MIRA 16:5)

1. Kafedra neorganicheskoy khimii Moskovskogo universiteta.  
(Complex compounds) (Schiff bases)

KUDRYAVTSEV, A.S.; SAVICH, I.A.; BYLINA, E.A.; SPITSYN, V.I.

Magnetic susceptibility of some azomethines. Vest.Mosk.un.  
Ser.2:Khim. 18 no.6:32-33 N-D '63. (MIRA 17:4)

1. Kafedra neorganicheskoy khimii Moskovskogo universiteta.

KUDRYAVTSEV, A.S.; SAVICH, I.A.

New azomethines. Zhur.ob.khim. 33 no.4:1351-1354 Ap '63.  
(MIRA 16:5)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.  
(Schiff bases)

KUDRYAVTSEV, A.S.; SAVICH, I.A.; KUNDO, N.; NIKOLAYEV, L.A.

Catalytic properties of the complex compounds of metals with  
Schiff bases. Zhur. fiz. khim. 36 no.6:1382-1384 Ja'62  
(MIRA 1787)

1. Moskovskiy institut inzhenerov transporta.

KUDRYAVTSEV, A.S.; BYLIHA, E.A.; SAVICH, I.A.; SPITSYN, Vikt.I.

Magnetic susceptibility of some inner-complex compounds.  
Vest. Mosk. un. Ser. 2: Khim. 20 no.1:31-32 Ja-F '65.

(MIRA 18:3)

1. Kafedra neorganicheskoy khimii Moskovskogo universiteta.

BORISOVA, A.P.; AKIMOVA, L.N.; SAVICH, I.A.

Study of the biuret complex of gramicidin C derivatives with  
the amino group. Vest. Mosk. un. Ser. 2: Khim. 20 no.1:33-35  
Ja-F '65. (MIRA 18:3)

1. Kafedra neorganicheskoy khimii Moskovskogo universiteta.

L 2271-66 EWT(m)/EPF(c)/EWP(j)/T RM/DJ

ACCESSION NR: AP5022227

UR/0191/65/000/009/0035/0037  
678.84:678.048.9

50  
49  
0

AUTHOR: <sup>44</sup> Kobzova, R. I.; <sup>44</sup> Levkina, N. K.; <sup>44</sup> Kudryavtsev, A. S.; <sup>44</sup> Savich, I. A.; <sup>44</sup> Oparina, Ye. M.; <sup>44</sup> Tubyanskaya, G. S.

TITLE: Effect of some complex compounds on the stability of polydimethylsiloxanes to thermal oxidation

SOURCE: Plasticheskiye massy, no. 9, 1965, 35-37

TOPIC TAGS: polydimethylsiloxane, silicone lubricant, antioxidant additive, chelate compound, Schiff base

ABSTRACT: The effect of certain complex compounds of copper, cobalt, nickel, lead, and iron with various Schiff bases on the stability of liquid polydimethylsiloxane polymer PMS-100 to thermal oxidation was investigated. All the compounds studied increased the stability of polydimethylsiloxane, the most effective being N,N'-bis(2-hydroxy-1-naphthylidene)-1,2-diaminoethane, which increased the stability by a factor of 9. The effectiveness of the complex compounds depends to a considerable extent on the nature of the metal and choice of the addend. The effect of metal is displayed most clearly in the case of N-(2-hydroxybenzylidene)-2-aminophenol, which forms a very effective stabilizing compound with  
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L 2271-66

ACCESSION NR: AP5022227

copper only; the effect of the addend is most pronounced in the case of complexes containing nickel. It is concluded that the use of chelates as high-temperature antioxidants for silicone oils deserves further investigations. Orig. art. has: 2 tables.

ASSOCIATION: none

SUBMITTED: 00

NO REF SOV: 004

ENCL: 00

OTHER: 001

SUB CODE: MT, 00

Card <sup>dg</sup> 2/2

KUDRYAVTSEV, A.S.; SAVICH, I.A.; SPITSYN, Vikt.I.

Determination of the constants of acid dissociation ( $K_a$ ) of Schiff  
bases. Vest. Mosk. un. Ser. 2: Khim. 20 no.2:47-49 Mr-Apr '65.  
(MIRA 18:7)

1. Kafedra neorganicheskoy khimii Moskovskogo universiteta.

SPITSYN, Vikt.I.; GRANOVSKIY, Yu.V.; KOMISSAROVA, L.N.; BORISOVA, A.P.; SAVICH,  
I.A.

Spectrophotometric study of the process of complex formation by the Box-  
Wilson method. Vest. Mosk. un. Ser. 2: Khim. 20 no.2:50-53. Mr.-Ap '65.  
(MIRA 18:7)

1. Kafedra neorganicheskoy khimii Moskovskogo universiteta.

BORISOVA, S.G.; BAYICH, I.A.; SPANOVSKIY, E.G.; KOMISSAROVA, L.N.; SPITSYN, I.M.

Determination of the composition of Arsen sulfosalicylate by the  
Fox-Wilson method. Vest. Mosk. un. Ser. 2: Khim. 20 no. 3: 51-53 My-Je  
198. (MIRA 18:8)

I. Kafedra neorganicheskoy Khimii Moskovskogo universiteta.

SAVICH, I.A., dotsent, kand. sel'skokhoz. nauk

Metabolism in swine as related to age, type of feeding, and  
origin. Izv. TSKHA no. 1:179-195 '65 (MIRA 19:1)

1. Kafedra svinovodstva Moskovskoy sel'skokhozyaystvennoy orde-  
na Lenina akademii imeni Timiryazeva.

KUDRYAVTSEV, A.S.; SAVICH, I.A.; BYLINA, E.A.; SPITSYN, V.I., akademik

Magnetic susceptibility of inner-complex compounds of nickel  
and copper with Schiff bases. Dokl. AN SSSR 165 no. 4:864-867  
D '65. (MIRA 18:12)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.

SOV/51-4-6-2/24

AUTHORS: Osherovich, A.L. and Savich, I.G.

TITLE: On Measurement of the  $3^3P$  and  $3^1P$  Level Lifetimes of Helium Atoms by the Delayed Coincidence Method (Ob izmerenii vremeni zhizni urovney  $3^3P$  i  $3^1P$  atomov geliya metodom zaderzhannykh sovpadeniy)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol IV, Nr 6, pp 715-718 (USSR)

ABSTRACT: The usual methods of measurement of the absolute values of probabilities of transitions in atoms, from which the values of the level lifetimes  $\tau_k$  are derived, yield results with 7-10% precision. The error in determination of the absolute values of  $\tau_k$  is due to the errors in determination of the number of gas atoms in a unit volume N. The method of delayed coincidences makes it possible to measure  $\tau_k$  directly without the necessity of determination of N. Following Heron, McWhirter and Rhoderick (Refs 1, 2) the present authors applied the delayed coincidence method to measurement of lifetimes of the  $3^3P$  and  $3^1P$  levels in helium. Two signals enter the coincidence circuit. Into one channel a variable delay line is introduced and the number of pulses per unit time in this channel is constant. If in the second channel the number of pulses per unit time changes exponentially with time, then the dependence of the counting rate of the number of

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SOV/51-4-6-2/24

On Measurement of the  $3^3P$  and  $3^1P$  Level Lifetimes of Helium Atoms by the  
Delayed Coincidence Method

coincidences  $N_c$  per second on the value of the delay time  $\tau_d$  introduced into the first channel, will also vary exponentially. This is true only for delays longer than the resolving time of the apparatus. In recording of emission of excited atoms the slope of the straight line  $\log N_c = f(\tau_d)$  is equal to the mean value of the excited-state lifetime of the atoms. Helium atoms were excited by a pulse-modulated electron beam. Emission of helium atoms was recorded by a photomultiplier FEU-19. The studied helium lines at  $3889 \text{ \AA}$  ( $3^3P-2^3S$  transition) and at  $5016 \text{ \AA}$  ( $3^1P-2^1S$  transition) were separated out by means of filters. Pulses from the photomultiplier output were fed to the coincidence circuit SS (Fig 1) through a cathode repeater KP. The resolving time of the coincidence circuit was  $10^{-7}$  sec. Pulses from a generator 26-I were fed simultaneously to the modulating grid of the electron gun used for excitation of helium, and, through an attenuator and a variable delay line, to the second channel of the coincidence circuit. The delay time could be varied from  $2 \times 10^{-8}$  to  $5 \times 10^{-6}$  sec. In recording the  $3^3P-2^3S$  ( $3889 \text{ \AA}$ ) transition a dependence of  $\log N_c$  on

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SOV/51-4-6-2/24

On Measurement of the  $3^3P$  and  $3^1P$  Level Lifetimes of Helium Atoms by the Delayed Coincidence Method

the delay time  $\tau_d$  (shown in Fig 2) was obtained. This figure shows a typical result obtained by the delayed coincidence method. From the slope of the rectilinear portion of the graph in Fig 2 the mean value of the  $3^3P$  level lifetime was found to be  $(1.00 \pm 0.08) \times 10^{-7}$  sec. The table on p 717 compares the values of the lifetimes of the  $3^3P$  level obtained by various authors. The first three are calculated values and the fourth is an experimental one. The agreement between these values and those of the present authors, given last in the table, is satisfactory. The value of the lifetime of the  $3^3P$  level was found to be independent of pressure between 0.025 and 0.09 mm Hg. This independence of pressure does not hold for the  $3^1P-2^1S$  transition, which is subject to the "capture" effect (Ref 10). The  $3^1P-2^1S$  transition was recorded at 0.01 mm Hg. Under these conditions the mean lifetime of the  $3^1P$  level was found to be  $(3.3 \pm 0.2) \times 10^{-8}$  sec. This result agrees with the results of Heron and co-workers (Refs 1, 2). Theoretical calculations, however, give a value of  $2 \times 10^{-9}$  sec for the  $3^1P$  level lifetime. To measure such a small value of the lifetime

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SOV/51-4-6-2/24

On Measurement of the  $3^3P$  and  $3^1P$  Level Lifetimes of Helium Atoms by the  
Delayed Coincidence Method

it is necessary to excite helium at very low pressures. This means  
that the photoelectric part of the apparatus must have much higher  
sensitivity than that which could be obtained at the present time.  
There are 2 figures, 1 table and 11 references, 4 of which are  
American, 4 English, 2 Soviet and 1 German.

ASSOCIATION: Leningradskiy Gosudarstvennyy Universitet, Fizicheskiy Institut  
(Leningrad State University, Physics Institute)

SUBMITTED: July 13, 1957

Card 4/4

5 (2)  
AUTHORS:

Vovk, V. N., Sayich, I. G.

SOV/32-25-8-25/44

TITLE:

Rapid Analysis of Steels on a Model of the Photo-electric Device of GOI Construction

PERIODICAL:

Zavodskaya laboratoriya, 1959, Vol 25, Nr 8, pp 969 - 970 (USSR)

ABSTRACT:

In 1956 the model of a photo-electric multi-channel (8 channels) instrument for emission spectrum analysis was installed in the plant Dneprospetsstal'. The instrument was developed in the Gosudarstvennyy opticheskiy institut (State Optical Institute) (Ref 1). Since May 1957 the instrument is in operation in one of the steel melting plants 40 - 50 m from the steel-melting furnace. The article contains a description of the observations made. Concerning mechanical requirements (jolts, etc) the instrument proved to be sufficiently stable and the measuring results were not influenced. The angle of inclination of the calibrating curves practically does not change during the operation which permits the use of the stable-diagram method. The operation diagrams were recorded according to the V, XII, XXI, and XXII-series of standard samples of the Ural'skiy institut metalloov (Ural Institute of Metals) and according to samples of

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Rapid Analysis of Steels on a Model of the Photo- electric Device of the GOI Construction SOV/32-25-8-25/44

the plant. The article contains the conditions under which the analysis of low- and medium alloyed steels was effected for Ni, Si, Mo, Mn, Cr, V, and W. The article also contains several details on the operation of the instrument (Table). The capacity of the instrument was too low for the determination of manganese and the analysis of high-speed steel for tungsten was not made because the accuracy of analysis was not sufficient. There are 1 table and 1 Soviet reference.

ASSOCIATION: Zavod Dneprospetsstal' (Plant Dneprospetsstal')

Card 2/2

86511

S/079/60/030/011/023/026  
B001/B055

5 3700

2209, 1273, 1274

AUTHORS: Petrov, A. A., Korner, V. A., and Savich, I. G.

TITLE: On the Mechanism of Lithium-alkyl Addition to Alkynes

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 11, pp. 3845-3846

TEXT: By treating the reaction product obtained from addition of lithium alkyls to alkynes with water, one obtains allenes (Ref. 1). In order to explain the reaction mechanism, the authors studied the IR spectra of solutions of lithium butyl and vinyl-ethyl acetylene in undecane and a mixture of undecane and ether (1 : 1). The reaction was slow in the former solvent, and after the reaction mixture was kept at 20°C for 24 h, the deformation frequency of vinyl-ethyl acetylene was still visible in the spectrum. In the presence of ether, however, the reaction is complete in a few minutes, with occurrence of spontaneous heating. Immediately after mixing the components, the spectrum, besides containing the frequencies of butyl lithium (Refs. 2 and 3) and vinyl acetylene, shows a gradually intensifying marked frequency at  $1865\text{ cm}^{-1}$ , which probably corresponds to the

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86511

On the Mechanism of Lithium-alkyl Addition  
to Alkynes

S/079/60/030/011/023/026  
B001/B055

associated molecule  $C_2H_5-CLi=C=CH-CH_2-C_4H_9$  (I). After leaving the mixture to stand for 12 h, a high frequency at  $1780\text{ cm}^{-1}$  appears in the spectrum. On treating the reaction mixture with water, these frequencies disappear from all the spectra taken at the various stages of the reaction, accompanied by the appearance of the allene-group frequency and the deformation frequency at  $1865\text{ cm}^{-1}$  (Ref. 5). That this frequency pertains to the vibrations of the associated allene - lithium complex (I) is confirmed by the fact that this frequency at  $1865\text{ cm}^{-1}$  and also the frequency at  $1780\text{ cm}^{-1}$  gradually appear in the spectrum of the undecane solution of butyl lithium and ethyl-butyl allene. On treatment of these solutions with water, ethyl-butyl allene was regenerated, and treatment with  $CO_2$  gave propadiene carboxylic acid, indicating a metallation reaction. On the other hand, enynes which do not form allenes by reaction with lithium alkyls, form complexes which apparently absorb at  $2050\text{ cm}^{-1}$  and not at  $1865\text{ cm}^{-1}$ . It is concluded from the data given in this paper, that the addition of lithium alkyls to vinyl-alkyl acetylenes proceeds via lithium allenes as inter-

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86511

On the Mechanism of Lithium-alkyl Addition  
to Alkynes

S/079/60/030/011/023/026  
B001/B055

mediates. The allene configuration is therefore formed when lithium alkyl  
adds to the conjugated system, and not when the reaction mixture is treat-  
ed with water. There are 5 Soviet references.

ASSOCIATION: Leningradskiy tekhnologicheskii institut imeni Lensoveta  
(Leningrad Institute of Technology imeni Lensovet)

SUBMITTED: July 28, 1960

Card 3/3

S/079/61<sup>LY/40</sup>/031/004/002/006  
B118/B208

158102 2209, 1372, 1407

AUTHORS: Petrov, A.A., Sopov, N.P., and Savich, I.G.

TITLE: Studies in the field of conjugate systems.  
CXXXIV. "Co-dimerization" of divinyl with diisopropenyl  
(Diene compounds. LXXIX)

PERIODICAL: Zhurnal obshchey khimii, v. 31, no. 4, 1961, 1140 - 1143

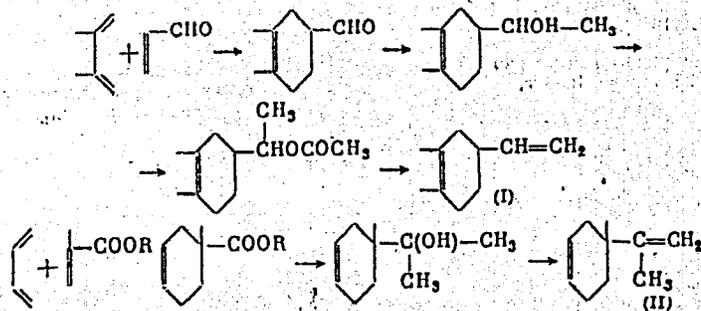
TEXT: Taking into account the paper by A.F. Plate and co-workers on the "co-dimerization of divinyl with cyclopentadiene (Ref. 5: Izv. AN SSSR, OKhN, 1958, 1279) which indicated a dependence of the reaction direction on the structure of dienes and on temperature, the authors of this paper studied the "co-dimerization" of divinyl with diisopropenyl. The reasons were the following: The structure of the "co-dimers" of divinyl with its homologs was determined by dehydrogenation to benzal homologs, and by oxidation of the latter with permanganate to corresponding aromatic acids. In this connection, errors were possible in the determination of the composition of the initial hydrocarbon mixture because of incomplete dehydrogenation of the individual components of the mixture, and because o-, m-,

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S/079/61/031/004/002/006  
B118/B208

Studies in the field of conjugate ...

and p-dialkyl benzenes give aromatic acids with different yields (especially in the presence of an o-isomer). Dienes were selected on the following aspects: According to the scheme



the formation of only two dimers (I) and (II) is to be expected owing to the symmetry of dienes, which considerably facilitates the analysis of the mixture. The method previously used to confirm the structure of the re-

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20948

S/079/61/031/004/002/006  
B118/B208

Studies in the field of conjugate ...

sultant substances in this reaction cannot be applied, since one of the dimers cannot be hydrogenated without isomerization. Besides, the two possible "co-dimers" were earlier obtained by the authors in pure condition according to the equations given. In both cases, the formation of any other isomers in which the radicals have another position on the cyclohexene ring is impossible in all reaction stages. The quantitative ratio between the two isomers in the "dimerization products" of divinyl with diisopropenyl was confirmed by the infrared spectra (Fig.). The spectrum of "dimer" (I) (Curve 1) shows intensive deformation bands of the vinyl group 910 and 991  $\text{cm}^{-1}$ , and the spectrum of "dimer" (II) (Curve 2) a very intense band of the isopropenyl grouping 890  $\text{cm}^{-1}$ . These frequencies were found to determine rather exactly the percentage quantitative ratio of both isomers in the mixtures mentioned. Reaction took place at 120 and 170°C. The ratio of yields of isomer (I) : (II) was 4 : 1, irrespective of temperature. The activity of hydrocarbons highly depends on temperature. The relative yield of mixed "dimers" was found to increase with temperature. The reaction rate is also greatly temperature-dependent. At 120°C, hardly any rubber-like polymer is formed, at 170°C, however, it results in

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S/079/61/031/004/002/006  
B118/B208

X

Studies in the field of conjugate ...

high quantities; this polymer contains the links of both hydrocarbons. The reaction presumably proceeds via a six-membered transition complex. The previous assumptions on the prevailing direction of "co-dimerization" of divinyl with diisopropenyl were thus confirmed and defined. There are 1 figure and 6 Soviet-bloc references.

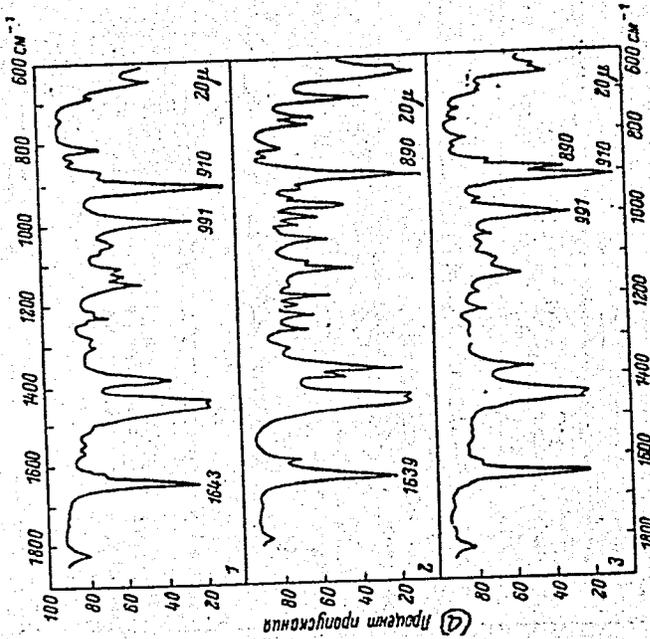
ASSOCIATION: Leningradskiy tekhnologicheskii institut imeni Lensevets  
(Leningrad Technological Institute imeni Lensevet)

SUBMITTED: April 29, 1960

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Studies in the field of conjugate ...

20948  
S/079/61/031/004/002/006  
B118/B208



Card 5/6

X

Studies in the field of conjugate ...

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S/079/61/031/004/002/006  
B118/B208

Legend to the Fig.:  
(1) 1-Vinyl-3,4-dimethyl-cyclohexene-2; (2) 1-isopropenyl-1-methyl-  
-cyclohexene-3; (3) copolymer from divinyl and diisopropenyl;  
(a) percents of translucence.

Card 6/6

// 2232  
// 2223

33934  
S/079/62/032/001/012/016  
D204/D302

AUTHORS: Korner, V.A., Petrov, A.A., Savich, I.G., and Podporina, T.V.

TITLE: The kinetics and mechanism of the addition of lithium butyl to vinyl ethyl acetylene

PERIODICAL: Zhurnal obshchey khimii, v. 32, no. 1, 1962, 318-319

TEXT: LiBu was reacted with vinyl ethyl acetylene (I) in undecane at 20 and 30°C, under argon, in molar proportions of 1 : 1 and 1 : 2. At 20°C the reaction gave an allene hydrocarbon (II) in 56 % yield after 20 hours. Concentrations of I and II were determined by infrared spectroscopy. The reaction proved to be kinetically of the first order, with velocity constants  $K_{20^{\circ}} = 0.0643$ ,  $K_{30^{\circ}} = 0.1333$  ✓  
 $\text{hr}^{-1}$  and with an energy of activation equal to 12.7 Kcal/mole. The rate controlling process is thought to be the monomolecular decomposition of a complex which forms as an intermediate stage. It was also observed that I decomposes faster than II is formed, especially at the higher temperature and when I was in excess. This is as-  
Card 1/2

PETROV, A.A.; LEBEDEV, V.B.; SAVICH, I.G.

Hydrogen bond between molecules of acetylenic aldehydes  
and ketones. Zhur.ob.khim. 32 no.2:658-659 F '62. (MIRA 15:2)

1. Leningradskiy tekhnologicheskii institut imeni Lensoveta.  
(Acetylene compounds—Spectra)  
(Hydrogen bonding)

PETROV, A. A.; RADCHENKO, S. I.; MINGALEVA, K. S.; SAVICH, I. G.; LEBEDEV, V.B.

Alkyl thioenynes and their analogs. Part 1: Synthesis and properties of vinylacetylenic thio-, seleno-, and telluro ethers. Zhur. ob. Khim. 34 no.6:1899-1905 Je '64. (MIRA 17:7)

1. Leningradskiy tekhnologicheskii institut imeni Lensoveta.

SAVICH, I.G.; MELENT'YEVA, T.G.; PAVLOVA, L.A.

Study of hydrogen bonding in hydroxy nthalanes by infrared  
spectroscopy. Zhur. ob. khim. 35 no.3:415-419 Mr '65.  
(MIRA 18:4)

1. Leningradskiy tekhnologicheskij institut imeni Lencsveta.

LEBEDEV, B.F., kand. tekhn. nauk.; MARTINSON, Ye.F., inzh.; SAVICH, I.Mi., inzh.

Constructing an experimental pipeline using flat-wound aluminum pipes. Nov.tekh.mont. i spets.rab. v stroi. 20 no.12:13-15  
D '58. (MIRA 12:1)

1. Institut elektrosvarki im. akademika Ye.O.Patona i Trest  
No.7 Glavneftemontazha Ministerstva stroitel'stva RSFSR.  
(Pipelines) (Pipe, Aluminum--Welding)

SOV/125-59-11-3/22

18 (2, 3, 5)

AUTHORS: Asnis, A.Ye., Rabkin, D.M., Candidates of Technical Sciences, and Savich, I.M., Engineer

TITLE: Impact Resistance of Welded Joints from Aluminum Alloy AMg6

PERIODICAL: Avtomaticheskaya svarka, 1959, Nr 11, pp 20-25 (USSR)

ABSTRACT: During last years, the application of aluminum-magnesium alloys for welded structures has been considerably increased. Such alloys as AMg6 (with 6% Mg) have a tensile strength of 30-32 kg/mm<sup>2</sup> and can in many structures supersede steel. However, the impact resistance properties of these alloys have not yet been sufficiently studied. This article deals with the problem of determining these properties. Tests were carried out on both alloy AMg6 and low-alloy steel; the results of tests for toughness of AMg6 are given in Table 1; curves giving the toughness of both materials depending on the temperature are shown in Fig 1. Further on, the authors give data on resistance of test pieces against

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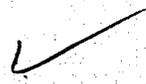
SOV/125-59-11-3/22

Impact Resistance of Welded Joints from Aluminum Alloy AMg6

ty than those made from low-carbon and low-alloy steel.  
There are 1 graph, 3 tables, 2 photographs, 1 figure  
and 5 Soviet references.

ASSOCIATION: Ordena Trudovogo Krasnogo Znameni Institut elektros-  
varki imeni Ye.O. Patona AN USSR (Order of the Red Ban-  
ner of Labor Institute of Electric Welding imeni Ye.O.  
Paton, AS UkrSSR)

SUBMITTED: May 26, 1959



Card 3/3

S/125/60/000/011/013/016  
A161/A133

AUTHOR: Savich, I.M.

TITLE: Experience with the semiautomatic "PShP-10" welder

PERIODICAL: Avtomaticheskaya svarka, no. 11, 1960, 77-78

TEXT: The ПШП -10 (PShP-10) semiautomatic welders have been designed for argon arc welding of aluminum alloys by consumable electrodes and are being extensively used in the USSR. Their particular feature is a pulling wire feed mechanism mounted in the handle of the welding gun. The following drawbacks have been revealed in practical use: 1) The weight of the motor, gear, and torch is 2.25 kg; and a part of the weight of the heavy hose (containing the cable, water pipes, argon pipe and control wires) also rests on the operator's hand; the weight of the individual welding gun parts is unevenly distributed. All this is tiring for the operator. 2) The wire feed is nonuniform because of braking friction of the aluminum wire on the steel spiral in the hose. The inside of the spiral covers with a thin layer

✓

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S/125/60/000/011/013/016  
A161/A133

Experience with the semiautomatic "PShP-10"...

of aluminum, and the aluminum wire sticks to aluminum on the spiral surface so that the feed is jerky. The jerking disturbs the welding process, spoils the weld and the gun nozzle. 3) The welding current in the reducer housing burns the driving and the clamping roller. The weight of the PShP-10 welder could not be reduced for this would mean a complete redesigning, but the two other defects have been eliminated. The improvement consists in the following. The hose was replaced by a polyethylene pipe with 6 mm inner diameter, 2.5 mm wall and 2.5 m length; textolite bushings were pressed into the pipe ends. After this the wire feed through the polyethylene pipe made no difficulties. The rollers were insulated from the conducting gun parts by a textolite bushing and a getinax lining, and the spring on the clamping roller was replaced by a rubber washer. The life of the insulated rollers increased by about four times, and the gun had worked for four months without replacement of the rollers. The welder has been tested with d.c. current from a ПСО-300 (PSO-300) transformer, with AMr6 (AMg6) wire. The tests lasted six months, and the gun worked satisfactorily. [Abstracter's note: The article includes no description or illustration of the PShP gun design]. The welding process parameters used for aluminum-magnesium alloys joints are included:

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S/125/60/000/011/013/016  
A161/A133

Experience with the semiautomatic "PShP-10"....

ASSOCIATION: Ordena Trudovogo Krasnogo Znameni institut elektrosvarki im. Ye.O. Patona AN USSR ("Order of the Red Banner of Labor" Electric Welding Institute im. Ye.O. Paton of the Academy of Sciences of the Ukrainskaya SSR)

SUBMITTED: March 31, 1960

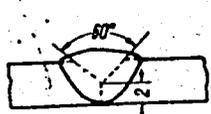
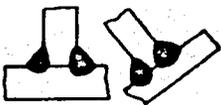
Table: ① joint type; ② metal depth, mm; ③ position; ④ number of passes; ⑤ No. of pass; ⑥ current, ampere; ⑦ current, volt; ⑧ argon consumption, l/min; ⑨ lower; ⑩ corner; ⑪ vertical upward.

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S/125/60/000/011/013/016  
A161/A133

Experience with the semiautomatic "PShP-10"....

Table (continued)

①	②	③	④	⑤	⑥	⑦	⑧
	10	Нижнее ⑨	2	1 2	310-330 230-250	26-28 20-22	25 ÷ 30
	12 ÷ 14	Нижнее ⑨	3	1 2 3	310-330 260-280 230-250	26-28 24-26 20-22	
	10 ÷ 14	В лодочку или в угол ⑩	1	1	280-320	26-28	20 ÷ 25
	10	Верти- кальное снизу вверх ⑪	2	1 2	250-270 230-250	24-26 20-22	25 ÷ 30
	12 ÷ 14	То же ⑫	3	1 2 3	250-270 230-250 230-250	24-26 20-22 20-22	

Card 4/4

SAVICH, I.M.

Modern methods of welding 2-6 mm thick aluminum and its alloys.  
Avtom. svar. 14 no.4:91 Ap '61. (MIRA 14:4)  
(Aluminum--Welding)

RABKIN, D.M.; SAVICH, I.M.; ROZHDESTVENSKAYA, T.S.

Construction of all-aluminum passenger cars. Avtom. svar. 15 no.2:  
60-65 F '62. (MIRA 15:1)

1. Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki im. Ye.  
O.Patona AN USSR (for Rabkin, Savich). 2. Kalininskiy vagonostroi-  
tel'nyy zavod (for Rozhdestvenskaya).  
(Railroads--Passenger cars) (Aluminum--Welding)

SAVICH, I.M.

Diagnosis of spontaneous hypoglycemia. Zhur.nevr. i psikh. 56 no.10:  
791-782 O '56. (MLBA 9:12)

1. Psikhonevrologicheskaya klinicheskaya bol'nitsa No.4 imeni P.B.  
Gannushkina (glavnyy vrach V.N.Rybalka) i kafedra psikhatrii (zav.  
prof. A.V.Snezhnevskiy) Tsentral'nogo instituta usovershenstvovaniya  
vrachev, Moskva.

(HYPOGLYCEMIA, diagnosis,  
(Rus))

(HYPERINSULINISM, diagnosis,  
(Rus))

SAVICH, I.M.

Moscow City Conference for Physicians in Psychoneurological Hospitals  
and Dispensaries. Zhur.nevr.i psikh. 59 no.9:1149-1151 '59.  
(MIRA 12:11)

(CHLORPROMAZINE)

SAVICH, I.M.

Photogenic epilepsy (ambulatory observations). Zhur. nevr. i psikh.  
60 no.11:1482-1493 '60. (MIRA 14:5)

1. Kafedra psikiatrii (zav. - prof. A.V.Snezhnevskiy) Tsentral'nogo  
instituta usovershenstvovaniya vrachey i Psikhonevrologicheskaya  
klinicheskaya bol'nitsa N6.4 imeni P.B.Gannushkina (glavnyy vrach  
V.N.Rybalka), Moskva.  
(EPILEPSY) (ELECTROENCEPHALOGRAPHY)

SAVICH, K.A.

SAVICH, K.A., inzh.

Constructing concrete foundations during winter. Nov. tekhn. ipered.  
op. v stroi. 19 no.9:14-15 S '57. (MIRA 10:11)  
(Foundations)  
(Concrete construction--Cold weather conditions)

SAVIN, Konstantin Dmitriyevich, inzh.; NEKLEPAYEVA, Z.A., red.

[Railroad engineering structures] Iskusstvennye sooruzhenia zheleznykh dorog. Izd.2., perer. Moskva, Transport, 1965. 223 p. (MIRA 18:6)

SAVICH, K. K.

ca

7

Conductometric titration of sulfuric acid in a mixture of sulfuric and nitric acids. K. K. Savich: *Zhurnal Khim. Fiz.* Lab. 8, 1059-61 (1939).—The  $H_2SO_4$  in mixts. of  $HNO_3$  and  $H_2SO_4$  was detd. by conductometric titration with benzidine-HCl after the mixt. had been previously neutralized with strong alkali. The elec. cond. decreases until all the  $H_2SO_4$  is attached to the benzidine whereupon it makes a sudden jump. Best results are obtained when the  $HNO_3$  and the  $H_2SO_4$  are about 0.1 N. The benzidine-HCl soln. should be about 1%. Pt electrodes 1 sq. cm. and 5-6 mm. apart are convenient. During titration the electrodes become covered with benzidine hydrosulfate.

B. Z. Kamich

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

MATERIALS INDEX  
 LIST AND LITERATURE  
 AUTOMATIC INDEX  
 LIST AND LITERATURE

SAVICH, K. K.

Feb 1947

USSR/Chemistry - Amines  
Chemistry - Diphenylamine, Methyl

"The Problem of Preparing the Oxides of the Tertiary Aromatic Amines,"  
V. B. Belov, K. K. Savich, 4 pp

"Zhur Obshch Khim" Vol XVII, No 2

A convenient method of forming the methyldiphenylamine oxide by oxidation  
at 40 - 50° of methyldiphenylamine with a mixture of perhydrol and acetic anhydr-  
ide.

PA 15T40

SAVICH, K.K.  
CA

PROCESSES AND PROPERTIES INDEX

10

ADDITION PRODUCTS OF PHENYLMAGNESIUM BROMIDE AND OXIDES OF DIMETHYLANILINE AND METHYLDIPHENYLAMINE. V. N. Belov and K. K. Savich (Moscow Mendeleev Chem. Tech. Inst.). *J. Gen. Chem. (U.S.S.R.)* 17, 202-8(1947).

--The products give on hydrolysis a quant. recovery of the original oxides, benzene, and basic Mg salts. Heating the adduct in dry solvents resulted, in the case of the Me<sub>2</sub>NPh product, in recovery of PhOH and PhNMe<sub>2</sub> in good yields. The adducts may be considered as ammonium-type salts, with a pos. charged complex ion and neg. Br ion, i.e. (PhMe<sub>2</sub>NOMgPh)Br. On addn. of an equimol. amt. of PhMgBr to dry PhNMe<sub>2</sub>O in Et<sub>2</sub>O at room temp. with shaking, the cryst. oxide became oily, followed by formation of a crumbly solid which after washing with Et<sub>2</sub>O and benzene could not be recrystd. from the usual solvents; it was obtained in 87% yield, and its analysis corresponded to an equimol. complex. Excess PhMgBr failed to change the product. It does not react with CO<sub>2</sub> in Et<sub>2</sub>O, nor with BzOEt. Refluxing 5 hrs. in Et<sub>2</sub>O gave 27% PhOH and some PhNMe<sub>2</sub>; benzene gave 48% PhOH and an unspecified amt. of PhNMe<sub>2</sub>, while PhMe gave 90% PhOH and 60% PhNMe<sub>2</sub>. Equimol. amts. of PhMgBr and Ph<sub>2</sub>MeNO in Et<sub>2</sub>O at room temp. gave a solid adduct, isolated as above. With another mol. of PhMgBr in Et<sub>2</sub>O, however, the complex dissolved and after 6 hrs. boiling gave Ph<sub>2</sub>MeN, Ph<sub>2</sub>, a small amt. of PhOH, and (MgBr)<sub>2</sub>O. Ph<sub>2</sub>MeNO (1 g.) gave 0.88 g. Ph<sub>2</sub>MeN and 0.78 g. Ph<sub>2</sub>.  
G. M. Kosoladoff

COMMON ELEMENTS  
COMMON VARIANTS INDEX  
MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND LETTERS  
3RD AND 4TH CROSS  
5TH AND 6TH CROSS

SAVICH, K. V.

SAVICH, K. V. - "Fibroarchitectonics of the Adult Cerebral Cortex in a Mature Person." Sub 2 Dec 52, Acad Med Sci USSR. (Dissertation for the Degree of Candidate in Medical Sciences).

SO: Vechernaya Moskva January-December 1952

ZHUKOVA, G.P.; LEONTOVICH, T.A.; SAVICH, K.V.

Differentiation of neurons of the cerebral hemispheres in mammals.  
Arkh.anat.gist.i embr. 31 no.1:3-14 Ja-Mr '54. (MLRA 7:4)

1. Iz Instituta mozga Ministerstva zdravookhraneniya SSSR (direktor -  
deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR professor S.A.  
Sarkisov). (Brain)

SAVICH, K.V.

Course of roots of the olfactory tract and their relation to formations of the paleocortex. Arkh. anat. gist. 1 embr. 31 no.2: 3-10 Ap-Je '54. (MLRA 7:8)

1. Iz nauchno-issledovatel'skogo instituta mosga (dir. prof. S.A.Sarkisov)

(NERVES, OLFACTORY, anatomy and histology,  
\*olfactory roots & their relation to paleocortex)  
(CEREBRAL CORTEX, anatomy and histology,  
\*relation of olfactory roots to paleocortex)

SAVICH, K.V. (Moskva, Skatertnyy per., d.24 kv. 1)

Fibroarchitectonics of the archicortex in adults. Arkh.anat. gist.  
i embr.33 no.2:30-34 Ap-Je '56. (MIRA 9:10)

1. Institut mozga AN SSSR  
(CEREBRAL CORTEX, anatomy and histology,  
paleocortex, fibro-architecture (Rus))

SAVICH, K.V.; YAKOVLEV, V.A.

Content and localization of sulphhydryl groups in different regions  
of cat brain [with summary in English]. Vop.med.khim. 3 no.2:  
121-128 Mr-Apr '57. (MLRA 10:7)

1. Institut mozga AMN SSSR, Moskva.  
(SULPHYDRYL COMPOUNDS, determ.  
in brain of cats, distribution & content (Rus))  
(BRAIN, metab.  
sulphydryl cpds., distribution & content in cats (Rus))

SAVICH, K.V.

Histochemical characteristics of the motor neurons of anterior crescents of the spinal cord of a cat following the transection of the anterior and posterior roots. *Sitologia* 4 no.2:227-230 Mr-Apr '62. (MIRA 15:8)

1. Laboratoriya gistokhimii Instituta mozga AMN SSSR, Moskva.  
(SPINAL CORD)

SAVICH, K.V.; DEGTYAREVA, S.M.

Histochemical studies on brain proteins in experimental blastomagenesis in mice. Vop.neirokhir. 28 no.4:31-35 J1-Ag '64.  
(MIRA 18:3)

1. Nauchno-issledovatel'skiy ordena Trudovogo Krasnogo Znameni institut neyrokhirurgii imeni Burdenko (dir. - prof. A.I. Arutyunov) AMN SSSR, Moskva.

SAVICH, L. A.

Spitsyn, V. I., Savich, L. A.-"Investigation of solubility of calcium molybdate."  
(p. 1278)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1952, Vol. 22, No. 7

28(5)

SOV/135-59-3-24/24

AUTHOR: Savich, M.K.

TITLE: Foreign Literature on Welding (Inostrannaya literatura po svarke)

PERIODICAL: Svarochnoye proizvodstvo, 1959, Nr 3, pp 47-48 (USSR)

ABSTRACT: This is a list of 51 references to articles published in 1958 in technical periodicals of Poland, Germany, England, France, Canada and the USA.

Card 1/1

USCOMM-DC-60,511

IMANGAZIYEV, Kenzes Imangaziyevich, doktor sel'skokhozyaystvennykh nauk;  
GABBASOV, A.M., spets. redaktor; SAVICH, M.P., redaktor; ZLOBIN,  
M.V., tekhnicheskii redaktor

[System of fertilizing in a crop rotation system including beets  
on irrigated land] Sistema udobreniia rastenii sveklovichnogo  
sevooborota v oroshaemom zemledelii. Alma-Ata, Kazakhskoe gos.  
izd-vo, 1956. 294 p. (MLRA 10:3)  
(Fertilizers and manures) (Sugar beets)

DAULENOV, Sal'kei Daulenovich; ZOZYLYA, Mordko Shlemovich; GUSEVA,  
N.P., red.; SAVICH, M.P., red.; NAGIBIN, P.A., tekhn. red.

[Water resouces of Kazakhstan] Vodnoe khoziaistvo Kazakhstana.  
Alma-Ata, Kazakhskoe gos. izd-vo, 1959. 269 p. (MIRA 15:5)  
(Kazakhstan--Water supply)

CHERNOGOLOVIN, Vasilij Petrovich, akademik; SAVICH, M.P., red; KUZEMBAYEVA,  
A.I., tekhn.red.

[Pulse crops and leguminous grasses in Kazakhstan] Zernobobovye  
kul'tury i bobovye travy v Kazakhstane. Alma-Ata, Kazakhskoe  
gos.izd-vo, 1960. 153 p. (MIRA 14:6)

1. Kazakhskaya akademiya sel'skokhozyaystvennykh nauk.  
(Kazakhstan--Legumes)

KUNAYEV, Dzhavdat Sabirovich; IL'YASHENKO, L.V., red.; SAVICH, M.P.,  
otv. za vypusk; NAGIBIN, P.A., tekhn.red.

[Dzhezkazgan - copper city] Dzhezkazgan - gorod medi. Alma-Ata,  
Lazakhscoe gos.izd-vo, 1960. 88 p.

(MIRA 14:7)

(Dzhezkazgan District--Copper ores)

BEME, Yevgeniy Leonidovich; VINOKUROV, Aleksey Konstantinovich;  
GERASIMOV, Vadim Yakovlevich; MOROZOV, Vladimir Nikolayevich;  
PLOKHOV, Sergey Grigor'yevich; LOPUKHOV, Mikhail Grigor'yevich;  
SUDAKOV, Vladimir Stepanovich; SAVICH, M.P., red.; NAGIBIN,  
P.A., tekhn. red.

[Driver's manual]Spravochnik shofera. Sost. E.L.Beme i dr.  
Alma-Ata, Kazakhscoe gos. izd-vo, 1961. 439 p. (MIRA 15:6)  
(Motor vehicles--Handbooks, manuals, etc.)  
(Transportation, Automotive--Handbooks, manuals, etc.)

PA - 2001

The International Colloquium on Actual Problems of Radio-Waves propagation.

infrasound and sound frequencies. P. Simon (Medon, France) spoke about "Radioactive Sunspots and Storms in the Ionosphere". S.S. Banerzhi (India), B. Bekman, and I.A. Sekston (England) spoke about the research concerning the physics of dispersion in the ionosphere. In the troposphere section papers were read about the following subjects: the characteristics of distance diffusion of ultrashortwaves in the troposphere, the interpretation of this diffusion, the fluctuation of tropospheric fields, the theoretic problems of dispersion in the troposphere, the influence of meteorological factors on dispersion in the troposphere and the dispersion of radio waves over unhomogeneous surfaces. As a conclusion to the conference there was an excursion to the radio-astronomical investigation station at Nancy, 200 km south of Paris.

ASSOCIATION: not given.

PRESENTED BY: -

SUBMITTED: 19. 11. 1956.

AVAILABLE: Library of Congress.

SAVICH, N.A.; ABRAMENKO, A.N.

Panoramic ionospheric station of the Crimean Astrophysical  
Observatory of the Academy of Sciences of the U.S.S.R. Izv.  
Kryn.astrofiz.obser. 17:219-231 '57. (MIRA 13:4)  
(Astronomic observatories)

Report presented at the GJGI meeting, 1-9 August 1958, Moscow.

ON THE SUBJECT OF THE INFORMATION IN THE ENGLISH  
VERSION OF THE DOCUMENT.

M. A. SAVICH  
M. A. SAVICH

SAVICH, M.A.